AMENDMENTS TO THE SPECIFICATION

Page 1, 1st full paragraph, please amend as indicated:

The present invention relates to a method and circuit for controlling channels in random accesses by using preamble signals under CDMA in order to ~~allocating~~ allocate efficiently access channels particularly for mobile communication systems.

Page 1, 2nd full paragraph, please amend as indicated:

A control channel is independent upon a communication channel in the conventional mobile communication system. A base station controls mobile stations through the control channels, when a call occurs. Here, a plurality of base stations [[are]] is provided in a wide service area. Further, a common frequency is used for the communication channels for zones which are distant enough to neglect interference noises. Thus, frequency resource is used efficiently.

Pages 1-2, bridging paragraph, please amend as indicated:

In JP 3-6932 A (1991), the mobile station transmits a control signal of which header designates an object base station. On the other hand, the base station transmits a free ~~cannel~~ channel signal for allowing the mobile station to transmit the control signal and an identifier for

the base station. When the identifier is identical with that transmitted by the mobile station, the base station stops transmitting the free channel signal, thereby knowing immediately whether or not the mobile station stays in its zone. Thus, the channel is efficiently controlled.

Page 3, 1st full paragraph, please amend as indicated:

Thus, RAKE reception can be executed by the outputs from despreading management units $48_1 \sim 48_3$, when [[,when]] the packet with preamble and data is modulated by a short period pseudo-noise. On the other hand, when the packet is modulated by a long period pseudo-noise in the slotted ALOHA system, the delay time can be estimated, the synchronous timing can be acquired, thereby reducing transmission power, separating long delay profiles, and executing the random access.

Page 4, 2nd full paragraph, please amend as indicated:

Accordingly, the base station may store the identifiers of the once rejected mobile stations, compare the identifiers with the calling mobile stations, and give a priority to the mobile station of which identifier is stored in the base station. The simplest identifier may be the preamble signal, because its length is constant. However, the preamble can not always be used in every CDMA mobile communication system. For example, the preambles of RACH in W-CDMA expectedly introduced in the year 2001 are only ten or more. The mobile station

selects randomly one preamble among the ten or more preambles, when the mobile station transmits the preamble. Therefore, the base station can not identify the mobile station by such preambles. Accordingly, [[other]] another kind of identifier is required.

Page 4, 3rd full paragraph, please amend as indicated:

The propagation delay time is employed in the present invention, because the propagation delay time depending upon a position and environment of the mobile station is ~~measures~~ measured correctly in the CDMA system and therefore useful to identify the mobile station.

Page 8, 1st full paragraph, please amend as indicated:

Correlation unit 13 calculates correlations between preamble signals selected among a plurality of prescribed preamble signals and a despread base band signal, and then outputs the correlation values and the propagation delay times. Here, [[The]] the number of prescribed preamble signals may be sixteen, and the prescribed preamble signal may be a pseudo noise code for spread spectrum system. Ordinarily, a signal with a preamble rarely reaches simultaneously together with other signal with that preamble. However, it is important to avoid any collision. The number of correlation units 13 is the number of the mobile stations covered by a base station or the number of the mobile stations which are prescribed and can be received by a base station. Correlation unit 13 obtains a propagation delay time of a preamble signal on the basis of a delay

profile which is a graph of signal level versus delay time. For example, the delay time may be a shift of the received preamble from the stored preamble.

Pages 8-9, bridging paragraph, please amend as indicated:

Preamble determination unit 14 determines whether a preamble was received or not, and then determines whether ACK should be transmitted or NACK should be transmitted. Only one preamble determination may be employed, even when a plurality of correlation units 13 [[are]] is employed. The output from correlation unit 13, or [[a]] an information pair of a mobile station transmitting a preamble and a delay time of that preamble, is stored if necessary by preamble determination unit 14.

Pages 9-10, bridging paragraph, please amend as indicated:

It is assumed that preamble signals for requesting a message part are transmitted simultaneously by communication terminals 2 and 3. Transmitter/receiver of base station 1 receives preamble signals 5 and 6. However, ~~transmitter /receiver~~ transmitter/receiver 1 can not identify the communication terminals on the basis of the preambles. At step S21, transmitter/receiver of base station 1 determines whether it can allocate a message part or not for the communication terminals which transmitted the preambles. Only one communication terminal is qualified for the allocation, if there is only one free message part.

Page 10, 1st full paragraph, please amend as indicated:

It is further assumed that the message part is allocated for communication terminal 3 which transmitted preamble signal 6, while the message part is not allocated for communication terminal 2 which transmitted preamble signal 5. In this case, ACK signal 8 for allowing to use the message part is transmitted for preamble signal 6. Therefore, communication terminal 3 can access the message part at step S26. On the other hand, NACK signal 7 for rejecting to use the message part is transmitted for preamble signal 5. In this case, the propagation delay of preamble signal 5 is stored at step S22. Thus, communication terminal 3 which [[are]] is allowed to use the message part can transmit and receive digital signal of voice, picture, or data.

Page 10, 2nd full paragraph, please amend as indicated:

After transmitting the preambles as shown in Figure 1, it is assumed that communication terminals 2 and 4 ~~transmits~~ transmit preambles, respectively. It is also assumed that preamble signal 9 from communication terminal 2 is different from preamble signal 5 as shown in Figure 1A. Thus, transmitter/receiver of base station 1 receives preamble signals 9 and 10. If only one message part is available, transmitter/receiver reads out the propagation delay of preamble signal 5 for which NACK signal is replied before at step S23 in order to compare the read-out propagation delay with the delay times of preamble signals 9 and 10.